Researchers announce ‘game-changing’ breakthroughs

While researching ways to improve animal health Dr. Bob Rowland, a virologist and professor of diagnostic medicine and pathobiology, and Dr. Deryl Troyer, professor of anatomy and physiology, have made two important discoveries that can also improve human health. Not only have they found pigs with severe combined immunodeficiency, or SCID, but they are also the first to discover the connection with human cancer, particularly melanomas and pancreatic cancers.

It began with Dr. Rowland’s research with controlling and eliminating porcine reproductive and respiratory syndrome, or PRRS. The work led to a fortuitous discovery: a naturally occurring line of immunodeficient pigs.

“Pigs are closely related to humans anatomically and physiologically,” Dr. Rowland said. “This can have huge potential for human cancer research.”

After the discovery of SCID pigs, Dr. Rowland turned to Dr. Troyer, who performs cancer research. Their collaborative work not only enables researchers to better study SCID pigs, but they can also apply their research to the study of human cancer and anti-cancer drugs.

“This is a great example of collaborative and interdisciplinary research,” Dr. Troyer said. “With two perspectives, there is often a synergy that evolves because of different ways of thinking.”

The research opens a variety of doors for both animal and human health research. It may now be easier for scientists to improve strategies for bone marrow transplants. They also have a better way to detect cancer drug side effects and test surgical interventions, Dr. Troyer said.

“The potential is a little daunting because it is as if there is no horizon limiting possible ways to utilize this model,” Dr. Troyer said. “It is an opportunity for Kansas State University to be a leader in the field and to become a center for large animal biomedical research.”

The scientists see possibilities for new, large scale research with the Kansas State University Johnson Cancer Research Center as well as cancer research partnerships and collaborations with the University of Kansas Cancer Center, especially with its recent National Cancer Institute designation.

“Agriculture benefits the people of the state in so many ways,” Dr. Rowland said. “While it includes jobs and exports, there is a human element that we sometimes forget. This is a good example of how we can take animal health research and all of a sudden it has the potential to help cure human cancer.”

Dr. Deryl Troyer and Dr. Bob Rowland join forces on cancer research described as a possible “game changer.”

(Photos courtesy of K-State Photo Services. Photo illustration by Rebecca Martineau.)
Dr. James Carpenter, professor in zoological medicine, recently received the T.J. Lafeber Avian Practitioner of the Year Award, an honor presented yearly to an outstanding practitioner who is advancing the quality of health care for companion birds. Award recipients are selected by an independent committee of members from the Association of Avian Veterinarians. Criteria for this award include: clinical excellence, innovation, promotion of the profession, contributions to the knowledge base, and caring and compassion to their avian patients and clients.

The award was established in honor of Dr. T.J. Lafeber Sr., a pioneer in companion bird medicine and the human-companion bird bond.

Dr. Carpenter completed his bachelor’s degree in wildlife conservation at Cornell University before earning a DVM and a master’s degree in wildlife ecology from Oklahoma State University. He is a Diplomate of the American College of Zoological Medicine, and he has been a clinical and research veterinarian for 36 years in the field of avian, exotic animal, wildlife, and zoo animal medicine.

Since joining K-State in 1990, Dr. Carpenter has assisted in developing an internationally recognized training program in zoological medicine, training 34 interns and residents while inspiring and motivating countless veterinary medical students. He was named Exotic DVM of the Year in 2000, and he also received the Emil Dolensek Award (AAZV, 2004), for exceptional contributions to the conservation, care, and understanding of zoo and free-ranging wildlife. Dr. Carpenter was also awarded the Edwin J. Frick Professorship in Veterinary Medicine in 2002.

Cat Town USA brings alumni and friends together

A new football season at Kansas State University means fun, friends and food at Bill Snyder Family Stadium. It also means a new season of the College of Veterinary Medicine at Cat Town USA.

“Cat Town is a large tailgating area where friends, family, corporations and colleges can set up a large tent and then invite their special guests to the game,” said Chris Gruber, director of development for the CVM. “In our instance, what we use it as is as an alumni relations event, so we invite all animal lovers, anyone who is a friend of the college, whether you’re an alumni or client, everyone’s invited.”

Offering food and a place to relax, the College of Veterinary Medicine tent in Cat Town can be found south of the west stadium parking lot two hours before every home football game.

For more in-depth coverage, check out the video report at: www.vet.k-state.edu/depts/development/lifelines/1209.htm
Students assist animals abroad in India

By Rebecca Martineau

Not everyone would jump at the idea of an unpaid mentorship in a third world country, but for second-year students Caitlin Sullivan and Andrea Dugan, the opportunity was irresistible. Caitlin first heard of the small, nonprofit clinic, Tree of Life for Animals (TOLFA), through the Student Chapter of American Veterinary Medical Association and encouraged Andrea to join her for the program in Rajasthan, India.

The TOLFA program consisted of three rotations: a week each of surgery, treatments and large animal volunteering. The students had the opportunity to work with veterinarians and animal care staff to learn more about the daily struggles faced by shelters in developing countries.

“The biggest thing I took away was seeing the differences in practicing animal medicine in a third world country,” Caitlin said. “The staff was extremely competent but they didn’t always understand the medical basis for why they do specific things.”

Both Caitlin and Andrea felt the cultural differences heavily in the clinic. Because Indian culture does not believe in the concept of euthanasia, sick animals are more prevalent than what they were used to seeing back home. The clinic provided a permanent home for any animal that couldn’t return to the environment it had come from, whether the animal was a dog, cat, monkey or even a buffalo.

“Often, much of the day would be spent with sick dogs just sitting with them and making them comfortable — it made us think about what we’ve been taught in school about the quality of life and how quickly it could deteriorate in time,” Andrea explained. “We had to consider what we would do at home versus what we would do in India.”

Both women affirmed that the experience increased their desire to someday participate full time in a program such as Veterinarians without Borders, or simply travel the world and help other people and animals.

“Volunteering with TOLFA was an unparalleled personal and professional experience that we will embrace for years to come,” Andrea said.

Helping out at Dodge City’s Roundup Rodeo

The Veterinary Health Center at Kansas State University partnered with Dr. David Ripple as the official veterinarians for the Dodge City Roundup Rodeo. They were available for any emergencies during and after the rodeo performance held each night.
Dr. Sureemas Nitikanchana, a doctoral student under Dr. Steve Dritz, was recognized with the “Best Production Abstract Presentation” award at the 2012 International Pig Veterinary Society Meeting for her meta-analysis comparing dry and wet-dry feeders. Dr. Nitikanchana’s paper was selected from 122 submitted abstracts. Congratulations!

Congratulations to Kim Malo, agricultural tech in the Comparative Medicine Group, who gave birth to baby Abigail on Aug. 21.

Dr. Howard Erickson gave a presentation on the “History of the American Veterinary Medical Association” at the 40th International Congress of the World Association for the History of Veterinary Medicine.

Dr. William Fortney was the guest editor and one of 13 authors of the “2012 Veterinary Clinics of North America: Small Animal Practice: Geriatric Edition (vol. 42 # 4, 2012),” published by Elsevier/Saunders. This publication replaces his 2005 edition.

Miranda Schremmer recently joined the Veterinary Medical Library staff. She is working in the technical service areas of the library to keep print and online services working and organized, as well as supervising all of the students who work in the library.

Dr. Rankin accepts mentoring award

Dr. Bonnie Rush (left), head of Clinical Sciences, presents the 2012 Award for Excellence in Residence Mentoring, to Dr. Amy Rankin, assistant professor in ophthalmology, who was nominated for the award by Dr. Jonathan Pucket.